THE AGRICULTURAL MAGAZINE.

CAMDEN, NEW JERSEY, JANUARY, 1826.

In issuing the third number of the Magazine we request the indulgence of our subscribers for the lingering manner in which the numbers have hitherto appeared, and confidently hope we have made arrangements that will enable us to overtake the series in arrear by the middle of April; in the mean time we shall make every exertion within the reach of our abilities to render it not only useful and interesting, but amusing and acceptable to our readers, and cordially invite the co-operation of the active members of agricultural societies in this and the adjoining States, and of practical agriculturalists, by communicating the results of their experiments, and such agricultural essays as they may deem of public utility.

This being the season, when vegetation is inert, and the surface of the earth, instead of being covered with verdure, is usually bound in the cold embraces of adamantine frosts, when the merry jingle of the sleigh bell, supplants the careless whistle of the plough boy, and the industrious farmer takes a necessary respite from his more active labours, we have given a large share of miscellaneous and other extracts, not so immediately connected with the agriculture of our own country, but which, nevertheless has a general bearing on the subject, and may at least serve as a profitable and useful amusement, on a long winter's evening.

Among these will be found a discourse delivered by the king of Sweden, before the Academy of Agriculture on the 28th of January 1825, by which it appears his Swedish majesty, is not ashamed to act as it were, as President of an agricultural society, and amidst all the dazzling splendours of royalty acknowledges the supremacy of the agricultural profession, not only as the source, under providence, from which our domestic wants are supplied, but as the natural spring of manufacturing and commercial enterprize, and as constituing even the very basis of the permanency of government. However singular this praise-worthy example may be among the sovereigns of Europe, yet in Asia, an esteemed less civilized quarter of the globe, the plough handle has long been honoured by the touch of royalty. In the spring of the year, the emperor of China

always goes in a solemn manner to plough up a few ridges of land, in order to animate the husbandman, by his example, in the cultivation of the earth; and in every other city but Pekin the mandarine performs the same ceremony.

The emperor and all his court go first in the field appointed to make an offering to *Chang-ti*, or the *Supreme Being*, and to beseech him to increase and preserve the fruits of the earth. This ceremony being over, the emperor, attended by three princes and nine presidents of the sovereign courts, who are to assist him at the plough, proceeds forward; several great men carry a valuable chest, which contains the grain to be sown, while all the court assist with profound silence. There are also present forty or fifty aged husbandmen, and about forty younger. The emperor having taken the plough and ploughed several times backward and forward, he resigns it to one of the princes of the blood, who ploughs in the same manner, as do all the rest. After having ploughed in several places, the emperor sows the different grains; these are wheat, rice, millet, beans, and a kind of millet called *coaleang;* and the day following the husbandmen finish the field, who are rewarded by the emperor with four pieces of dyed cotton for cloaths.

As a farther encouragement to agriculture, every year a husbandman, most remarkable for his skill in cultivating the earth, is made a mandarine of the eighth order, by which he is intitled to wear the mandarine's habit; to visit the governor of the city, and to sit in his presence. When he dies his funeral obsequies are performed with a grandeur suited to his rank; and his title of honour is written in the hall of his ancestors.

Nor is the history of our own country barren in examples of a like worthy and noble character, the Father of our country, the great and immortal Washington, was conspicuous as a farmer, as well as a general and a statesman.

The prices of domestic articles remain about the same as given in our last.

THE SEASON.

The weather the present winter, has been as yet very changeable, the transitions from heat to cold and *vice versa* have been sudden and unusual, some days being exceedingly cold and others as uncommonly moderate. In the early part of January the navigation of the Delaware river opposite Philadelphia was obstructed by heavy and floating cakes of ice; on the 11th it was entirely free from all obstructions of this nature, and the navigation is stated to have been open on the 12th from Albany to New York, a circumstance very uncommon at that season of the year. On the 13th and 14th we saw persons ploughing in our neighbourhood, and the weather had more the appearance and temperature of spring than of midwinter.

Substitution of vinous and femented liquors in place of spirituous.

It has been suggested to us by several respectable gentlemen, that much good would probably result from an annual distribution of prizes for the best home made wines, and for the best fined ciders, by encouraging the manufacture of the one, and perfecting the making of the other, and by finally introducing them into common use in the place of spirituous liquors; and, we learn it is in contemplation to form a society in Gloucester county for the purpose.

Among the agricultural prizes adjudged by the several agricultural societies, we recollect but few of this description, and it is a matter of surprise the subject has been so much neglected, and hope the hint may direct their attention to this important object; we conceive it would conduce very much to the benefit of society, and be one of the most effective means of expelling the intemperate use of spirituous liquors from among us. In the wine growing countries drunkenness is rarely if ever known. No country in the world abounds with better materials for making good cider than the United States, and it is conjectured, that by a due degree of attention and experience in making it, our cider might even vie with some of the imported wines.

INTERNAL IMPROVEMENT.

The principle of internal improvement seems to be advancing with rapid strides; in the state of New York, the remote and not long since solitary waters of Lake Erie, are now connected with the rolling waves of the broad Atlantic. In this State, the Morris canal designed to open a canal navigation from the upper part of the Delaware to New York, has been commenced and is progressing; The commissioners have reported a route for the Delaware and Raratan canal, the great connecting link of internal communication between the North and South, and will probably be commenced in the course of another year; the Ohio as well as the Chesapeake and Delaware canal has been commenced, and the latter expected soon to be completed; the House of Representatives of Pennsylvania have reported bills, to incorporate the Tioga navigation company—the object, a canal and slack water navigation on the Tioga, and to the Coal Mines at Peters Camp; to incorporate the Delaware and Susquehanna Canal and Rail Road Company—the works to commence at Lackawannock, and proceed to the Delaware Water Gap and Easton; Wilkesbarre and Delaware Central Railway Company—to connect a line from Wilkesbarre to the Delaware Water Gap; Lackawanna and Susquehanna Rail Road Company—to connect by a line from the Susquehanna to the Belmount Coal Mines. Nor is the spirit of internal improvement, confined to our own and neighbouring states; it influences the deliberations of the general government; and it is expected measures will be taken at the present session of Congress for cutting a canal across the peninsula of Florida; it pervades Europe, and it is projected in

France, to open a channel from Paris to the ocean; and in England, from St. George's to the English sound.

About 3000 labourers are employed on the Ohio canals. One of these canals is to be from the junction of the Scioto with the Ohio, to the mouth of the Cayahoga river, at Cleaveland on Lake Erie, in length 306 miles. The other from Cincinnatti to Dayton on the Miami river, 60 miles in length. About 47 miles of the long canal is under contract, and about 43 miles of the other.

In the first and second numbers of the Magazine we have published several articles relative to the cultivation of the white mulberry and raising the silk worm; in the first, the method of raising and treating the worms in China the place of its nativity, and in the second, the results of some experiments made in this country; we are gratified in observing from the following resolution offered in the House of Representatives on the 29th ult. by Mr. Miner of Pennsylvania, which was agreed to by the House, that the subject of raising the silk worm, and the manufacture of silk is likely to engross the attention of the general government. The circumstance that sewing silk to the amount of 54,000 dollars is annually manufactured in Windham a single town in the State of Connecticut, furnishes in our estimation an almost conslusive argument that this branch of domestic manufacture, may, by perseverance and experience, be brought to very considerable perfection in the United States; the fact that the amount of silks imported into the United States the last year actually exceeded the amount of bread stuffs exported in the same period, by upwards of 500,000 dollars, is, we think sufficient to stamp the subject with a due degree of importance.

HOUSE OF REPRESENTATIVES.

Thursday, December 29th.

Mr. MINER, of Penn. offered the following:

Resolved, That the Committee on Agriculture be instructed to inquire whether the cultivation of the mulberry tree and the breeding of silk worms, for the purpose of producing silk, be a subject worthy of legislative attention. And should they think it to be so, that they obtain such information as may be in their power, respecting the kind of mulberry tree most preferred: the best soil, climate, and mode of cultivation: the probable value of the culture, taking into view the capital employed: the labour and product, together with such facts and opinions as they may think useful and proper.

Resolved, That the Committee inquire whether any legislative provisions are necessary or proper to promote the production of silk.

On offering this resolution, Mr. MINER wished to say one word, with respect to obtaining for it a favourable reception. In looking over the report of the secretary of the treasury, of last year, he

had observed that the amount of silks imported into the United States was $ 7.233,784, whilst the whole amount of bread stuffs exported was but $ 6,713,595, being more than half a million less than the value of imported silks. The amount of tobacco exported was a little over four millions. The value of the whole products of the sea, including the fisheries, was less than a million and a half, and that of all the productions of the forest was not five millions. He stated these facts merely with a view of showing that the cultivation of silk might be an interest worth cherishing. He did not, he confessed, forsee that any legislative provision would grow out of this inquiry, but he wished that the committee should inquire—that they should spread the result of their inquiry before this House and before the nation. Its publication would at all events be useful, and it might happen that farther legislation would be required on the subject, in consequence of the information to be received.

The following is stated to be the weight of ten hogs raised and killed at Port Elizabeth the late season; we regret we are not informed who raised and fed them, viz: 2 hogs 17 months old 892 pds.; 2 do. 16 months old 897; 2 do. 15 months old 820; 2 do. 16 months old 770; and, 2 do. 9½ months old 625.—Total 4004 pounds.

TO THE EDITOR OF THE FARMER'S MAGAZINE.

Mr. Ellis,

The extraordinary drought and extreme heat of the last summer having in many places reduced the fall crops, particularly that of corn, much below the common average of usual seasons, necessity, which is the mother of inventions, in some measure imposes the propriety of consulting economy in the domestic consumption of that stable grain, in feeding horses, cattle, &c. Such has been the scarcity of corn, the late fall in some parts of the country that many farmers were obliged to kill their hogs much earlier than they were formerly in the practice of, which consequently brought a glut of pork into the market in the early part of the season that was sold much below its real value, and corn, naturally raised as much above it. Under the circumstance of this scarcity of corn, would it not be well for us to recur to the experience taught us in feeding grains by the failure of the crops in the remarkable season of 1816, which has been almost lost or forgotten in a series of productive seasons and the subsequent reduction of the price of grains. In the winter of 1816—17, I found by repeated experiments that corn stalks or tops cut in the same manner as straw, mixed with a small quantity of shorts or indian meal and wet with warm water, made an excellent and economical food for horses, and that a horse might be kept in good condition by this feed with at least one half the grain he would require by the usual modes of feeding. The saccharine juices of the corn stalk contains much more nutriment, then exists in the husky nature of straw, or even the blades of the stalk, and a mess pre-

pared in this way is eaten with more avidity by the horse than that by mixing the meal with cut straw.

If you think the above hint worthy a place in your valuable Magazine, please insert it; and with sincere wishes for its prosperity I subscribe myself.

Your friend

ECONOMICA.

Burlington county, January 10, 1826.

CONSTITUTION

OF THE

AGRICULTURAL SOCIETY OF THE COUNTY OF SALEM,

ADOPTED, APRIL, 1825.

ARTICLES OF ASSOCIATION,

Entered into at Salem, the second day of April, 1825, *for the purpose of establishing an Agricultural Society, viz.—*

ARTICLE I. This Society shall be called and known by the name of "The Agricultural Society of the county of Salem."

II. The terms of admission shall be the subscribing these articles, or a copy thereof, and payment of one dollar. And each member shall annually thereafter pay to the treasurer not less that one dollar, at the spring meeting. If any shall neglect to pay for two years, and refuse when called upon, he shall cease to be a member.

III. There shall be two meetings of the Society in each year, in Salem on the third Tuesday of April, and on the last Tuesday of October, at 10 o'clock in the forenoon, at such place within the county of Salem, as the previous Spring meeting may designate.

IV. The offices of this society shall be filled by a President, first, second and third Vice-Presidents, a Recording Secretary, a Corresponding Secretary, and Treasurer—and also a Chairman for each township represented by six members in the Society—to hold their appointments for one year, and from thence until others shall be appointed to succeed them.

The duty of the President shall be, to provide and keep order at all meetings of the society, and besides his vote as a member shall have a casting vote, in cases of the votes being equally divided: he shall also be the President of the Executive Committee, with like powers. The 1st, 2d, or 3d Vice President, shall perform the duty of the President in his absence, both in the society and in the committee.

The Recording Secretary shall keep a regular minute of the meetings and proceedings of the society, and of the executive committee in separate books to be kept for the purpose. He shall also

keep an alphabetical list of the members' names by townships. And the corresponding secretary shall report such correspondence as he may have with other societies or with individuals relative to the objects of Agriculture.

The Treasurer shall receive all monies due to the society, and be accountable for the same—and pay them out upon an order signed by the President or one of the Vice-Presidents, countersigned by the Recording Secretary and sanctioned by a resolution of the society or the Executive Committee; and he shall keep a regular account of all receipts and disbursements, which shall be open at all times to the inspection of the society and the Executive Committee; and shall be laid before the society at every meeting.

V. There shall be a sub-commttee of five appointed in each township represented, over which the Chairman of the township shall preside. And it shall be the duty of the Chairman and Committee, to obtain subscriptions to the society, within their township, and to collect and pay the same to the Treasurer—to receive an account of all experiments and improvements in the culture of land and in the breed and keep of the various kinds of stock; and to report the same to the President or Secretary of the Executive Committee, or to the Society.

VI. That the aforesaid officers, and township committees, shall be appointed by ballot, at the first meeting of the Society; and there shall be an election for the same officers and committees, at every spring meeting of the society. Previous to going into an election, there shall be a nomination of candidates for office, to the Recording Secretary, who shall make out a list of them and no others shall be voted for, to fill the offices. That the President shall name two members to receive and count the votes, and a majority of those present shall be necessary to an appointment.

VII. That no officer, or member of the society shall receive any compensation for the discharge of the duties of his station. Nor shall any tavern expenses, for food or drink or other expenses of the meetings of the society, or of the Executive Committee, be defrayed out of the funds of the society; but that the said funds shall be appropriated to the necessary expenses of stationary, postage and printing, and premiums for the improvements in Agriculture, in the implements of husbandry, and in the breed and keep of the various kinds of stock, domestic manufactures and rewarding labourers.

VIII. That the Executive Committee shall consist of the President, the Vice-Presidents, Recording Secretary, Corresponding Secretary, and Treasurer and the Chairman of the Township Committees. That this committee shall meet, set and adjourn as they may deem expedient—each member having notice of the meetings—and the President may call special meetings. That seven of the Executive Committee shall constitute a quorum for the transaction of business, and be ruled by a majority of those present—but the President or one of the Vice Presidents shall always be present to constitute a legal meeting.

That this Executive Committee shall always have power in the

recess of the society, to carry into effect all their resolutions and determinations—and to fix and ascertain the objects for premiums—and the amount of premiums for each—and to advertise the same in the newpsaper within thirty days after the adjournment of the society—specifying the time of the Cattle show and meeting of the society, when the premiums will be awarded.

To select and have printed for the benefit of the society, and for distribution among its members such extracts from the proceedings and experiments of other Agricultural Societies, and other tracts, or other original communications, as they may deem expedient, and the expense of which shall be within the compass of the existing funds.

This committee too shall take upon themselves (as far as they may lawfully do so) the superintendance and encouragement of the market and show of Cattle directed by law to be held in Salem, and advertise the same—and shall appoint, at each of their meetings to be held on the morning of each market, three members of the society who shall be of disinterested, unbiassed, judicious, intelligent men, of known integrity, to view such horses, cattle, sheep, hogs, or other stock, and any such other subject matter as may be the object of an offered premium, which three persons, shall be the judges upon that occasion, and after a sufficient view, they or any two of them shall determine and set down in writing, the subject offered for such premium, and to whom it shall be awarded, and lay the same before the Executive Committee, who shall make record thereof, and direct a payment of the premium accordingly.

Provided always, that none but a member shall be authorized to show for a premium—and that all descriptions of stock exhibited for the premium, shall be brought and shown to the judges one day, at least, before the meeting, and every animal obtaining a premium, shall be set up for sale, at auction, on the same day and sold to the highest bidder, the owner having the right to bid as well as others.

The Executive Committee shall also have power in the recess of the society, to appoint a Chairman and sub-committee for any and every such township, as may join the society, by affording a subscription of six members, after the last adjournment of the society.

And generally, the Executive committee shall in the recess of the society, be clothed with all their legitimate functions, to transact all business, necessary to forward the objects of the society, which are the promotion of the interests of Agriculture in all its branches, and the improvement of the various kinds of stock throughout the State. And it shall likewise be the duty of this committee to keep accurate minutes of all their meetings and proceedings, and to report the same to every meeting of the society.

IX. This Constitution may be altered or amended by proposing such alteration or amendment at the meeting of the society, and then to be laid over for the consideration of the next meeting, at which meeting, if two-thirds of the members present agree thereto, the same shall be adopted.

FROM THE DEMOCRATIC PRESS.

AGRICULTURAL REMARKS

ON THE STATE OF PENNSYLVANIA, ANNO. 1825.

The summer was remarkably dry, and hot, and some sections of the State have suffered considerably by the drought: but although the crops have not been abundant as usual, we had reason to rejoice in the almost total disappearance of the fevers, which had afflicted the country for *three preceding years*. For this blessing, our hearts should overflow with gratitude to the Great Disposer of events.

The spring was cool, accompanied with moderate showers, and though unpromising, did no injury except to the early fruit, particularly apple trees.

In the neighborhood of Philadelphia (within twenty miles of the city) the average of Fahrenheit's thermometer was, in June, 78½ degrees.

The prevailing winds, N. W. S. W.

There were eight rains, twenty one clear, and nine cloudy days.

A very severe, and destructive gale from the N. E. and N. W. occurred on the 4th and 5th. Its effects were woefully conspicuous at sea. Many vessels with all on board sunk beneath the violence of the winds and waves. Thunder and lightning on the 11th, 12th, 23d, and 28th.

In July average thermometer 82 2-3 degrees.

Prevailing winds S. W. N. W. N. E.—six cloudy, and twenty-five clear days;—small showers of rain on the 24th, 25th, and 31st. distant thunder on the 23d and 31st.

In August, average thermometer 78½ degrees.

Prevailing winds N. E. N. W.—nine cloudy, and twenty-two clear days;—small rain on the 9th, 11th, 16th and 17th, and plentiful showers on the 18th, 19th and 20th.

No thunder,—air strongly electric at night on the 9th and 14th.

In September, average thermometer 71¼ degrees—prevailing winds N. E. N. W. S. W.—ten cloudy, and twenty clear days,—three tolerable showers during the month. On the 2d, thermometer 66 at 6 A. M.—on the 11th, 47 at sunrise, and on the 25th, 26th, 28th, 29th and 30th at day-break, Fahrenheit's thermometer stood at 52, 56, 51, 48, and 50 degrees.—No thunder and lightning.

The products of the year may be stated as follows:

Corn was scarce, owing to the dry weather.

Wheat generally good, fair in quality and quantity.

The crops of *Rye*, *Oats*, and *Hay* tolerable, not however so abundant as common. The oats in particular deficient.

Pasture in the spring rich, and fine. The very dry and hot weather injured it, in the summer and fall.

Peaches scarce, and of an inferior quality.

Apples very bad.—An almost total failure in some places, in consequence of the late frosts in the spring, and the drought in the summer.

All other fruits generally, not so fine as usual.

Green peas, moderate.

Potatoes very poor and scanty. They have been selling for some time past at one dollar a bushel in the city. The present singular deficiency is no doubt attributable, to the state of the weather in August, and September. Sufficient attention however is not paid to the culture of potatoes. Our farmers ought not to neglect them. Their use is indispensible in all families, and they are always in demand.

Fall Turnips, large and abundant.

Our winter vegetables; celery, cabbage, rutabaga, beets, radishes, &c. &c. pretty good,—though not as fine as was expected.

The spring of the year 1825, was the *coolest*, and the summer the *hottest* that has occurred for many years. If all the hopes of our farmers have not been realized they have still cause to be thankful, that no *serious deficiency in the product of the year* has happened.

AGRICOLA.

EXPERIMENTAL FARMING.

"There is no way of making improvements in farming, but by improvements. If the Farmer is informed of, or has conceived, a different and better method of culture or management in any branch of his farming, he is to test the goodness of that method by experiments; and if these prove successful, he may congratulate himself on having performed an act, which is serviceable to his country and honourable to himself.

Perhaps it would be well, if some institution was devised and supported at the expense of the state, which should be so organized, as would tend most effectually to produce a due degree of emulation among farmers, by rewards and honorary distinctions conferred on those who, by their successful experimental efforts and improvements, should render themselves duly entitled to them. It might also be advisable to have two or three experimental farms in different parts of the state, under the direction of suitable superintendants, who should have the profits of the farms to themselves, and who should be excited to a degree of emulation by a reward, given yearly to that superintendant who should be found the best entitled by his superior culture, and by the success of his experiments when duly authenticated, and published yearly for the benefit of the community. Something like these might cost considerable at first, but would eventually be made the means of greatly enriching the state by improving its agriculture."

How very different would be the state of things in this rich and favoured country from what they are, and that in a very few years, if, instead of the practice of *close* dealings with each other, *often* to overreaching and taking advantages where they offer—concealing the results of profitable experiments, and endeavouring to speculate *on* instead of *with* one another; Farmers were to feel and acknowledge themselves, by an open and generous affability and mutual well-wishing—to be members of one family in the great chain of nature: The wealthy reflecting upon the blessings put into

their hands as stewards, and of their varied obligations; particularly those of *patronage* of the virtuous poor—of promoting intelligence, education, and religious principles among the youth—not confining their incomes and moral exertions to themselves and their offspring. They would soon discover, that by promoting the *generrl good*, they would *more than doubly* promote their own and that of their posterity. They might thus render themselves *truly* the patrons —the benefactors of humanity and religion, and ensure a reward, which the wealth of the Indies could never equal or purchase for them.

FROM THE BELVIDERE APPOLLO.

ON FERTILIZING THE SOIL.

The golden rule in Agriculture is to apply such manures and tillage as will make heavy land lighter, and light land heavier cold land hotter. He is only a farmer who knows and follows this rule.

Lands are seldom so rich, but it may be a matter of gain to increase their fertility: and few tracts are so poor but that with proper tillage and manuring they may be made the residence of plenty.

Manures are composed of all those substances which, either, directly or indirectly, supply plants with their requisite food, by means of which they are enabled to expand and come to maturity.

In the first place, the different earths will serve to manure each other. Thus, clay, is a fertilizer of a light sandy soil, and sand is equally a fertilizer of clay. Where clay is applied to a sandy soil, it should be carted on in the fall, and spread evenly over the ground, that the frost may pulverize it before it is mixed with the soil in the spring.

The better these earths are mixed in the respective soils, the more sensible and immediate will be their effect; but their principal excellence is, that they are calculated permanently to improve the soils to which they are applied. Stiff loams are also in the same way assisted by sand, and sand again by these; but neither in so great a degree as in the former case.—Generally, it may he observed, that all light, dry soils, are improved by being mixed with heavy earths, and *vice versa*.

Sand and fine gravel will greatly fertilize the soil of bog meadows, and this earth is very good manure for all upland soils. It is peculiarly excellent for Indian corn, when applied to the hills, and is very good for flax, hemp, and most other summer crops. Like gypsum it is friendly to the growth of white clover. When applied to upland grasses, it sould be laid on as a top dressing. Every kind of black mud from ponds and swamps, answers a somewhat similar purpose; though if the mud be stiff and clayey, it should only be applied to a light dry soil.

The different sorts of marle found in bog swamps are also excellent manures for the upland soils. These earths are usually found at the depth of from one to three feet from the surface, and are either of a white grey, or brownish colour. The former is the most efficacious and the latter the least so, their strength being in proportion to the

quantity of carbonate of lime they contain. It is best to mix these earths with the mass of black earth or bog dirt, that forms the upper stratum, in order to reduce their strength; and when thus mixed, a load of even the weakest kind is more efficacious than two of common barn-yard dung.

FROM THE EASTON GAZDTTE.

Correspondence between Dr. Martin and Dr. Muse, on the subject of "Burned Clay."

Easton, July 11th, 1825.

DEAR SIR,

I have frequently observed in the course of conversation with my agricultural friends, as I have done to you, that every farm in this county had resources within itself, which, properly managed, would be sufficient to fertilize its soil, so as to make many blades of grass grow, where one would scarcely grow to perfection before; thus, according to the exalted sentiment of Dr. Swift, placing our farmers above the greatest emperors, whose glory consisted in destroying their fellow-men, while that of the farmer will be to provide for their subsistance and comfort.

Under these impressions, in looking around me, I could not think of a gentleman altogether equal to yourself in scientific knowledge and of the same ardor, as well as public spirit, to undertake the investigation of a subject, which would be most likely to make our farmers more useful and of higher character than the greatest conquerors of the earth.

Chemistry is so much connected with agriculture as well as the arts generally, that it may well be called its chief corner stone, and if properly directed, will have the happiest tendency to its improvement. Permit me to say, without any intention of flattering, that much is expected from you as an experimentalist as well as a theorist, on the subject of "burned clay," both as to the application as well as the modus operandi of this manure, which may be manufactured on almost all the farms of the Eastern Shore of Maryland.

General Beaston, as well as some of our modern farmers, have made the matter of burning clay a very simple process indeed, and so it may be, when properly understood, but until then, we shall be constantly hearing first one and then another expressing doubts as to its efficacy as a manure. You know, and every body ought to know, there is a right and wrong way of doing almost every thing; if the right way should not be fallen upon in burning clay, the object will be almost entirely defeated, and an end will be put to any further experiment with such persons!

As to the rationale of the modus operandi, it will be of little consequence to the farmer, if he can learn the art of burning the clay, and experience at all times its beneficial effects. But this alone will not satisfy the inquisitive mind, and one who is so capable as yourself of penetrating into the arcana of nature. I confess, I feel the same propensity, though I may come short of the truth, and differ

with you as to the rationale of the modus operandi of a manure, the efficacy of which I have experienced to my satisfaction.

You believe that clay to become a manure must be burned in open kilns, and thus be oxidated, but I, on the contrary, am of an opinion, that the clay must be carbonated in close kilns, in the same manner as wood is charred or carbonated. If open kilns are necessary to make an oxide of the clay, there will soon be an end put to this expensive method, but if it is to be burned in close kilns in the same manner as common coal kilns, it will be no more expensive to burn five hundred loads than it would five, for when the clay is completely ignited, it may be heaped on ad infinitum! The great object is to exclude the air altogether, as in a coal kiln. If the air is permitted to have access to the wood, it will soon burn down to ashes, and if the air comes in contact with the clay, it goes out and the process ceases.

There is something mysterious in carbonating wood, and so of clay. It has been observed to me by blacksmiths and others who are in the practice of burning coal kilns, that green pine is equal, if not superior to any other wood. Now it is known, that pine and more especially its leaves, contain more oxygen, that is, the acidifying principle, than any other wood or leaves, and I have observed, that wherever the pine-fallings as they are called, that is the leaves of the pine, have been deposited as a manure, the sorrel puts up in great abundance, and where it did not grow before. Hence the advantage of liming all such lands as those where sorrel grows, and I would say, hence the advantage of burning such lands, or putting on them, 'burned clay,' to neutralize the acid in the soil. I am confident "burned clay," will be more beneficial on a soil of stiff clay, than on a light sandy soil, though my experiments on "burned clay," have been principally confined to a soil where sand predominates.

Clay taken from below the surface, say two feet, and used in making bank fences, puts forth the first year an abundant crop of sorrel, and at once demonstrates the clay had become a deutoxide that is, had acquired by attraction from the atmosphere a second dose of oxygen, besides what was attached to it from the creation. A view of the subject in this light demonstrates the absurdity of deep ploughing in every soil, and explains the reason why there ought to be an immediate application of a manure capable of neutralizing the acid qualities of the earth, when the soil is ploughed in below a certain depth in some particular fields.

That carbon enters largely into every kind of wood as a component part, is self-evident, from the circumstance of burning coal, as it is termed; and that it is a manure of the first degree, when reduced to an impalpable powder, has been proved over and over again; but from the labour and expense of applying it to the earth to act as such, it must necesssarily be excluded; but not so with regard to *carbonated clay;* one stroke of the hoe or spade crumbles the largest lumps into dust, and makes it at once capable of mixing with the earth. Of all bodies in the world, carbon has the greatest attraction for oxygen, and makes carbonic acid gas when united. It is this gas, which enters into the composition of vegetables by being applied

to their roots and becomes their chief food. Other elementary bodies have their share in perfecting trees and plants of every kind, but it is as plain as that two and two make four, that carbon is the principal ingredient in their composition, and hence it is, that "burned clay" must and will be acknowledged among the best and strongest manures. It is to be hoped, since the subject has been commenced, the farmers will be more and more zealous in the cause of improvement, and that experiments will be made by other farmers as well as yourself, and that every source of improvement will be tried with the art of burning clay; that farmers may feel their importance more and more every year, and that they will leave nothing untried to make themselves happy, wealthy and wise. Very respectfully yours, &c.

ENNALLS MARTIN.

Dr. Joseph E. Muse.

From the Boston Medical Intelligencer.

FOOD.

Among those subjects which immediately relate to health, there is no one more important, or less regarded by individuals, than their aliment. It is a mistaken notion, that one person requires an animal diet, and another whose avocation and habits are different, a vegetable regimen; many of the diseases originating in dyspepsia, the great endemic of the northern States, are induced by a habit of living too exclusively upon a few articles of food, most of which are animal. Nature intended that man should subsist upon the variety of bounties with which she has so liberally replenished the earth, and constituted his system in a manner suitable to partake, almost indiscriminately, of whatever is agreeable to his palate; and the injurious effects of many articles of diet, are to be attributed, not so much to their peculiar nature, as to the refinements of cookery. Although the roast beef of England has become the magnum bonum of a good dinner, in this country, the too great freedom and frequency with which it is used, already begins to affect the constitutions of the opulent, by those peculiar disorders which have been entailed on the descendants of the high bred families of great Britain. The gout was once a stranger in New-England, but the luxury of modern days is preparing the way for a train of constitutional irregularities, which future generations can only regret, while they suffer its inflictions. To live long, live simply.

It is true that animal food contains a greater portion of nutriment, in a given quantity, than vegetables, and in a proper state of preparation, it is almost adapted for the immediate action of the absorbents of the chylo-poetic viscera; but the digestive functions of the human system become prematurely exhausted, by constant action, and the whole system actually sinks under great or uninterrupted excitement. If plain animal food were taken but once a day, and men would substitute for the various ragouts with which modern tables are so abundantly furnished, wholesome vegetables and pure water, or weak fermented beverage for the more deleterious potations of

distilled liquors, we should see health walking in the paths that are now crowded with the bloated victims of voluptuous appetite. Millions of Gentoos have lived to an advanced age, without having tasted of any thing that ever possessed life, and been wholly free from a chain of maladies, which have scourged every civilized nation on the globe; the wandering Arabs, who have traversed the barren desert of Sahara, subsisting on the scanty pittance of milk from the half-famished camel that carried them, have seen two hundred years roll round, without a day of sickness.

The temperature of our food is an exceedingly important consideration. We are accustomed to take it too warm, forgetful of the fact, that artificial heat destroys the muscular tone of the stomach vitiates its secretions and its physical powers, and induces painful and dangerous diseases of the liver. Let us take, then, another hint from the children of nature, who subsist on aliment of a temperature no higher than that of their own bodies, and who are generally hardy and long-lived, until the simplicity of their habits is intercepted by the adoption of the vices brought among them by the civilized invaders of their native forests.

PARSNIP WINE.

Newport, Isle of Wight, March 9.

Sir: The following extract is from "Philips' History of cultivated Vegetables."

"Wine made from these roots, approaches nearer to the Malmsey of Madiera and the Canaries than any other wine: it is made with little expense or trouble, and only requires to be kept a few years to make it as agreeable to the palate as it is wholesome to the body: yet fashion induces us to give pounds for foreign wines rather than as many shillings for those of our own country."

Being in the habit of making a variety of wines, and giving them much attention, I willingly bear testimony to the correctness of Mr. Philips's statement. Parsnip wine surpasses the other home made wines in the ratio of excellence that western Island of Madeira is supertor to Cape.

Under these circumstances, I ask leave, through the medium of your useful paper, to offer to the public specific directions for the manufacture of Parsnip Wine, there not being one published recipe on the subject.

To every four pounds of parsnips cleaned and quartered, put one gallon of water; boil them till they are quite tender; drain them through a seive, but not bruise them, as no remedy would clear the wine afterwards. Pour the liquor into a tub, and to each gallon add three pounds of loaf sugar, and a half an ounce of crude tartar. When cooled to the temperature of 75 degrees, put in a little new yeast; let it stand four days in a warm room, then turn it. The mixture should, if possible, be fermented in a temperature of 60 degrees. September and March are the best seasons for making the wine. When the fermentation has subsided, bung down the cask, and let the wine stand at least twelve months before bottling.

If great delicacy of flavor be not indispensible, most sugar may be substituted for loaf, and some expense thereby avoided. But the wine may be made with good loaf, or crushed lump-sugar, and not cost more than 7½ cents per bottle ! I am sir, yours &c.

L. S.

P. S. If some scientific person would favor the public with a chemical analysis of the parsnip, it would facilitate future experiments in the manufacture of wine; and from which experiments, great improvements might reasonably be expected.

From Memoirs of the Board of Agriculture of the State of New-York.

PRUNING OF ORCHARDS.

[*From* COXE *on fruit trees.*]

There is no branch of the management of orchards less understood, or more unskilfully performed, than the operation of pruning; a belief of its necessity is so general, that even the most careless will seldom omit it—such however, is the want of skill in many of the operators, that total neglect would be less prejudical, than their performance of it. If judiciously done, pruning promotes health and early fruitfulness: and will continue a tree in vigour, long after the common period of its duration. Nothing has contributed more to the imperfect knowledge of this operation than the wordy and unintelligible systems, which have been published respecting it; in a mere practical system, it is unnecessary to lay much stress on *wood branches* and *fruit branches;* which however well understood by an observing intelligent gardener, can scarcely be comprehended by the labourer, employed in the business of pruning an orchard—from the rapidity of vegetation, which is generally ascribed to the nature of our climate, excessive pruning is very apt to generate an infinite nnmber of suckers from the limbs of apple trees; which, if suffered to grow are more injurious to the production of fruit, than the woody branches which are removed; our great heat, and dry atmosphere, render close pruning less necessary here than in England, whence we derive most of our instruction on this point. A good general rule is, never to shorten the branches, unless to improve the figure of the tree; and then to take them off at the separation, very close, so that the wound may heal well and soon: the branches should shoot as much as possible in increasing distances, as they proceed from the common centre, inclining a little upwards, by which means the sap will be more evenly impelled, and better distributed; the ranges should not approach too near to each other; for the admission of the rays of the sun is necessary to the production and perfect maturity of fine flavoured fruit—in cutting off a branch, it should be done as close as possible, never leaving a stump, for the bark cannot grow over it, and disease in wood will inevitably follow. If the wound produced by the separation be very large, cover it with tar, or thick paint; if small, fresh cow dung will be the best plaster: I have healed very large wounds from the gnawing of calves, horses,

and sheep, by a liberal application of this plaster, secured by a bandage of paper or linen.

When trees are much pruned they are apt to throw out numerous suckers from the boughs in the following summer; these should be rubbed off when they first appear, or they may be easily broken off while they are young and brittle—cutting is apt to increase their number. Trees differ much in their form, and require different treatment in pruning; it may not be necessary in our warm climate to trim quite so close as in England, but great care should be observed to take off every limb which crosses another, or is likely so to do at a future time; those who can conveniently do it, will find a benefit from forming the heads of their trees in the nursery, the year before they remove them—when transplanted, they will thrive more rapidly from not having been pruned, at the time of removal, which in some measure exhausts and weakens the tree; I have been latterly in the babit of giving the principal pruning to my orchards, after they have been planted out about five or six years; their growth, with proper cultivation is then so vigorous, as to permit any natural defects in their forms to be corrected with safety, by free pruning, and forming their branches; the particularity of growth which characterizes each kind, is then visible, and uniformity of shape may be more easily attained.

Apple trees should be so formed, as to allow a man and horse to pass under them in ploughing; this elevation of the branches, while it protects them from cattle, opens the ground to the salutary influence of the sun, on the crops of grain and grass.

No error is more universal, than an anxiety for early productiveness in an orchard; it is generally obtained at the expense of much eventual profit, and by a great diminution of the size and vigor of the trees; believing early fecundity to be injurious to the vigor and perfection of plants, I am always attentive to pluck from the trees these evidences of early maturity, in the first stages of their existence.

It was a common practice, some years since, to apply Mr. Forsyth's celebrated composition to large wounds produced by pruning; that novelty like many others, had its day among us; and has finally lost its popularity, from a general belief of its inefficacy—Forsyth, at a later period, announced as a new discovery, what had been long known in this part of our country; that an application of cow dung and urine, was more efficacious in healing the wounds of trees than his plaster, even in the moist climate of England: In America our winter frosts decompose it, and our summer heats dry it up so completely, as to render it useless for the purpose intended.

FROM THE COLUMBIA, (S. C.) TELESCOPE, JUNE 28.

DESTROYING WEEVILS.

Mr. Cline,

Sir, I received a few days since the following method of destroying weevils in flour, wheat, rice, and other grains, either in

the barn or in barrels, of preventing or curing the rust in *wheat* or *cotton*, which the writer says possitively is owing to small insects; and also for destroying rats in barns, graneries and elsewhere.

This was sent to me as chairman of the board of curators of the South Carolina agricultural society, by Mr. James M'Lain, of York district, South Carolina, and he very liberally allows me to publish it as often and in any manner I please.

Mr. M'Lain says, that the rust in wheat is occasioned by small yellow worms, to be found mostly in the hallow of the stock between the top joint and the head; they are so very small that they can scarcely be seen by the naked eye. The rust in cotton is caused by multitudes of insects on the underside of the leaves.

I am well aware that sulphur has been frequently recommended for the above purpose; but whether it has had a full trial is doubtful, particularly in the manner and time of using it, as directed by Mr. M'Lain, viz: by making matches of the brimstone or sulphur, sticking them after being lighted, in the field infected by the insects *between day-light and sun-rise*, when the air is still and the dew on the plants. This being done for three successive mornings will destroy the insects, and restore the wheat and cotton to perfect health and vigor. Now it is very possible that the smoke of the brimstone impregnated the dew on the plants and may have a fuller effect than if used under other circumstances.

One pound of brimstone is sufficient for ten acres each morning for wheat or cotton.

To preserve wheat, rice or other grains, and flour in barrels from weevils and worms, wet the inside of the barrel and turn it over a burning match—let it stand about ten minutes, take it off and put in your wheat, rice, flour, &c. immediately.

When we consider the enormous ravages and the great destruction caused to farmers, cotton and rice planters, merchants and others, by insects and rats, it excites surprise that certain means of destroying them have not yet been found out or very fully and repeatedly tried. Should the sulphur, used according to Mr. James M'Lain's method, prove effectual, his name deserves to be handed down to posterity with the highest honor and praise for the liberal and disinterested manner in which he made the communication.

I am, respectfully,

Sir, Your's, &c.

N. HERBEMONT.

CUT WORM.

Having suffered severely in the corn crop, several years past, and particularly during the last year, by ravages of the cut worm, I determined to try the effect of a fall fallow for a crop of corn for the present year, in destroying the worm, it being a pretty generally

received opinion, that a fall fallow by exposing the worm, to the winter's frost, would destroy it. For this purpose, the whole of a field of 110 acres, covered with a heavy clover stubble, was well and deeply ploughed last fall, chiefly with oxen, two yoke to a plough, except about fifteen acres, which for an experiment were left unbroken. Ten of the fifteen acres, were listed in the spring, at the usual time with four furrows of a two horse plough, and in horizontal rows of six feet distant leaving the interval between the lists, called in our agricultural phraseology, the baulk, unbroken, and well set with clover, left as food for the worms, and so far as a protection to the corn. The other five acres remained undisturbed, and out of cultivation. The whole field thus prepared, with the exception of the above five acres, was planted in corn, about the middle of the last month (April.) The worms commenced their dapredations, with the coming up of the corn. A large proportion of the corn in that part of the field, fallowed last fall, has been destroyed by the worms, and the remainder, so crippled, as to render it doubtful, whether it can be depended on for a crop. It has however, been replanted, with the hoe alone, at the expense of considerable time and labour. The corn in the ten acres of the baulk, land, together with the clover in the baulks, has been destroyed literally root and branch, and the five acres of clover adjoining has shared the same fate. I have never seen an instance, of so entire and complete a destruction of every species of vegetation, by the worm. The roots of the clover are eaten into shreds, and all other vegetation completely annihilated. I have on this day (22d May) re-ploughed and re-planted the whole piece, with however but little hope of succeeding in a crop from it, for the worms are still as numerous as ever, with increased power of doing mischief.

While these ravages have been sustained on clover fallow, twenty acres of low grounds in wheat last year, and planted in corn this spring, have remained perfectly free from the worm. Now it is to solicit information as to this fact, among your numerous correspondents, that I have troubled you with the foregoing details. If it can be satisfactorially ascertained that, corn following wheat, will be exempt from the worm, it is an important fact, and one which should be generally known. An opinion to this effect, I know pretty generally prevails, but has not been established upon any satisfactory data, so far as comes within my knowledge—Many no doubt of your numerous readers, and correspondents, have pursued a rotation of crops, which will bring the fact, to a satisfactory test. Heretofore, mine has been a six years rotation of crops, in the following order,—corn, wheat, clover : wheat, clover, and clover. Under this system, with the two auxiliaries gypsum and manure, the land has rapidly improved. But for several years past, owing to the depredations of the worm the labour expended in the corn crop (to say nothing of the risque of a total failure) has been so greatly increased as to render it out of all proportion to the value of the crop, when made. An abandonment therefore of the corn crop, or a change of system, which will free us from these troublesome at-

tendants of the clover, has become indispensibly necessary. I propose to try a change of sytem and to make corn follow wheat. This will throw the three grain crops together in succession, a course which none but strong lands will sustain. In the mean time, I should be gratified, to receive through the medium of your valuable miscellany, any suggestions as to a better system of crops, or further information, as to the facts above mentioned.

CROPS.

Rotation of crops of Mr. Stimson, a New York farmer; with the average expenses and profits of a field of 8 acres from 1812 to 1821; or eight years culture.

1812.

Early in September turned over a sod to the depth of 3 inches, and then well rolled. Expense $ 2 25 cents per acre, is for 8 acres	$ 18,00
Barn-yard manure, 5 laods, and ashes three laods, at 75 cents per load—$ 6 per acre	48,00
This was spread equally over the surface after rolling, and lightly ploughed with a one horse plough, so as not to disturb the sod but just to scratch the surface—Expense	8,00

1813.

Ploughed again, light—$ 1 per acre,	8,00
Sowed barley, 2½ bushels per acre at 75 cents per bushel, seed cost	15,00
Harrowed with a light harrow—Expense	3,00
Reaping, carting, threshing, &c. $ 6,62½ cents per acre,	53,00
Total expense of the crop,	153,00
Produce, 50 bushels per acre—400 bushels at 75 cts. per bushel, amounts to	$ 300,00
Neat profit of crop	147,00
In the fall, ploughed up the stubble 3 inches deep and rolled, at $ 1,75 cts. per acre	14,00

1814.

Harrowed and ridged, at $ 1,50 cts. per acre	12,00
Planted with corn, 2 feet 7 inches apart, cost 2 dolls. per acre, including seed	16,00
Ploughing both ways, one furrow in a row, without disturbing the sod, and hoeing, cost 2 dolls. per acre	16,00
Plaster 1 dollars per acre	8,00

Ploughing and hoeing second time, and suckering 2 dollars per acre		16,00
Harvesting and threshing crop		32,00
Total expense of crop		114,00
Crop 80 bushels per acre—640 bushels, at 75 cts.		$ 480,00
Neat profit of crop		366,00

1815.

Split the hills and harrowed, cost		$ 4,00
Cross ploughed and harrowed		8,00
Sowed 1½ bushel wheat per acre is 12 bushels, at 1 dollar		12,00
Sowed at the same time, 5 pounds clover and 2 quarts timothy seed per acre		8,00
Sowing and harrowing in seed		8,00
Harvesting, carting, threshing, &c.		32,00
Total expense of crop		72,00
Crop 24 bushels per acre, is 192 bushels at 1 dollar 25 cents		240,00
Neat profit of crop		168,00

1816.

Mowing, curing, cartage, &c. of grass, worth 7 dollars per acre		$ 56,00
The amount of the crop was three tons per acre making 24 tons at 7 dollars per ton	168,00	
Fall pasture, worth 2 dollars per acre	16,00	
		184,00
Neat profit		128,00

1817.

Expense of mowing, curing, cartage, &c. this year, 4 dollars per acre		32,00
The amount of corp, which was two and a half tons per acre—20 tons, at 7 dollars	140,00	
Fall pasturage, 1,50 cts. per acre	12,00	
Total amount of crop		152,00
Leaving a neat profit of		120,00

1818.

Pastured without any expense.	
Neat profit	50,00
In the fall, turned over the sod, rolled and manured with 6 loads of yard-dung per acre, spread over and ploughed in as before ; expense	50,00

1819.

Ploughed with a light plough on top of the sod. Expense	8,00
Sowed two and a half bushels of barley per acre at 62½ cents per bushel	12,50
Sowing and harrowing in of seed	4,00
Harvesting, threshing, &c.	53,00
Total expense of crop	127,50
Crop, 56 bushels per acre, is 448 bushels at 50 cts.	224,00
Neat profit	96,50
In the fall ploughed 3 inches and rolled as before, with same expense	18,00

1820.

Planted with corn in the same way and with the same expense	100,00
Total expense	118,00
Crop 90 bushels per acre, is 720 bushels at 44 cts.	316,80
Neat profit	198,80

1821.

Hills split and harrowed down	12,00
Sowed with barley ; seed and sowing	13,00
Grass seed	8,00
Harvesting threshing, &c.	53,00
Total expense of crop	86,00
Crop 60 bushels per acre, is 480 bushels at 50 cts.	240,00
Neat profit	154,00
Total amount of profit for 8 years culture	1428,30
Deduct amount of interest on 8 acres, worth 100 dollars per acre, for 8 years, which is	348,00
Leaves	1044,30

Which is the clear profit for 8 years culture of eight acres of land.

COMMERCE OF THE UNITED STATES.

It will be seen by the following statement of the value of imports and exports, and of the quantity of American and foreign tonnage entered into and departing from the districts of Boston, New-York, Philadelphia, Baltimore, Charleston, Savannah, and New-Orleans, during the year ending on the 30th of September, 1824, that with a population ten times greater than that of the period in question, the domestic exports of Philadelphia, drawn for the most part from the same district of country and including manufactures, were, in the last year little more than three times as valuable. This interesting document furnishes evidence also of the increasing commerce of Philadelphia. From the fourth or fifth, she has risen to be the second city of the United States as it regards exports, and is not far below the same-rank on the scale of imports.

IMPORTS.

	AMERICAN. *Vessels.*	FOREIGN. *Vessels.*	Total.
Boston,	12,695,325	130,885	12,826,210
New-York,	34,200,627	1,768,888	35,969,515
Philadelphia,	11,205,278	660,253	11,865,531
Baltimore,	4,360,837	182,538	4,543,375
Charleston,	1,461,519	703,021	2,164,540
Savannah,	409,463	133,802	543,265
New-Orleans,	3,110,261	1,429,508	4,539,769

EXPORTS.

	Domestic.	*Foreign.*	*Total.*
Boston,	2,204,313	4,820,079	7,024,392
New-York,	12,410,401	9,363,480	21,778,881
Philadelphia,	3,182,694	6,182,199	9,364,893
Baltimore,	2,555,417	1,312,276	3,868,693
Charleston,	7,833,708	200,369	8,034,077
Savannah,	4,585,885	3,980	4,589,865
New-Orleans,	6,442,946	1,485,864	7,928,810

TONNAGE.

	AMERICAN.		FOREIGN.	
	Ent'd.	*Cl'd.*	*Ent'd.*	*Cl'd.*
Boston,	118.780	92,321	5,192	4,667
New-York,	222,368	213,920	18,139	16,322
Philadelphia,	76,617	76,631	4,938	5,635
Baltimore,	57,159	72,922	4,981	6,017
Charleston,	39,770	61,092	17,543	18,878
Savannah,	17,219	32,951	11,583	11,716
New-Orleans,	63,305	54,139	24,261	21,996

AN ABSTRACT OF THE

UNITED STATES TREASURY REPORT.

From the National Journal, Dec. 26.

By reference to our Journal, of last week, it will be seen that the annual report of the secretary of the Treasury has been laid before congress. We have already placed this important document before our readers in its entire form. We shall here make an abstract of its contents; by which the principal points in the report will be brought into one view.

The actual receipts into the Treasury during the three first quarters of the year eighteen hundred and twenty-five, are estimated to have amounted to $ 21,681,444,56.

Viz:		
Customs,	15,195,397 00	
Public lands,	976,902 67	
Dividends on stock in the bank of United States,	367,500 00	
Arrears of internal duties and direct taxes, and incidental receipts,	98,886 29	
Repayments of advances made in the war department,	41,758 60	
Loan under the act of May 26, 1824	5,000,000 00	
	21,681,444 56	
And the actual receipts into the Treasury during the 4th quarter of the year are estimated at	5,100,000 00	
Making the total estimated receipts into the Treasury during the year 1825,		26,781,444 56
And with the ballance in the Treasury on the 31st Dec. 1824, of		1,946,597 13
An aggregate of		28,728,041 69
The expenditures during the three first quarters of the year 1825, are estimated to have amounted to	20,190,979 91	
Viz:		
Civil, diplomatic & miscellaneous,	2,098,525 16	
Military service, &c.	4,890,300 59	
Naval service,	2,127,156 37	
Public debt,	11,074,987 79	
	20,190,979 91	
And the expenditures during the 4th quarter, are estimated at	3,253,000 00	

Viz:

Making the total estimated expenditure of the year 1825,	23,443,979 91
And leaving in the Treasury on the 1st of January 1826, an estimated balance of	5,284,061 78

It is observed by the secretary, that of the above estimated balance of 5,284,061 dolls. the sum of 3,500,000 is not subject to appropriation, being the estimated amount which will remain, on the 31st Dec. next, unsatisfied, of appropriations heretofore made.

Of the residue of 1,784,061 dollars the secretary observes, it is proper distinctly to state. that about a million cannot be counted upon in any estimate of effective funds, being made up of debts due the United States from various banks whose notes were received by the government during the suspension of specie payments, or which were used as banks of deposite ; debts of which the recovery must, in regard to a large part, be doubtful, and in any case slow.

DEBT.

Total amount of funded debt on the 1st Oct. 1825, was	$ 80,985,537 73
Of this amount the only portion remaining unpaid of the revolutionary debt, is the 3 per cts. amounting to 13,296,231 45 dollars. This and the subscription of 7,000,000 dollars in the bank of the United States at 5 per cent, (the United States holding an equal amount of the capital of that institution,) are redeemable at the pleasure of the government, making, together	20,296,231 45
The residue of the public debt, contracted subsequently to Jan. 1812, and amounting to $ 60,689,306 27 will be annually reimbursable in certain proportions from 1826, to 1835.	

The treasury notes unpaid on the 1st Ocober, 1825, is 16,600 ; and the amount of Mississippi stock unredeemed on that day, is 7,850 17 dollars.

Of the 11,074,987,79 dollars, mentioned as paid off in the last year, 7,727,052, 19 dollars, were, on account of principal, and the remainder of interest for the first three quarters of the year. In 1826, upwards of sixteen millions, and in 1827, thirteen millions, of the debt will become due. It is proposed to pass an act to borrow nine millions at 5 per cent. interest, redeemable in 1829 and 1830; and an act for an additional loan of six millions; the former loan to enable the treasury to pay off the remainder of the 6 per cent. stock of 1813, redeemable in 1826 : and the latter to redeem the thirteen million of stock of 1814, which will become redeemable in 1827.

After these operations, and some exchanges of stock which are proposed there, will remain to be provided in the year 1829, eight and a half milions; and the same sum in 1830. After 1830 the remainder of the debt will be about forty millions, one half of which will be redeemable at the pleasure of the government; and the principal part bearing an interest of less than 5 per cent.

REVENUE AND EXPENDITURE.

The exports of the year ending the 30th September, 1825, exceeded $ 92,000,000
The imports have exceeded. 91,000,000

Of the exports, upwards of 66,000,000 were of domestic, and the remainder of foreign productions. Of the imports, upwards of 86,000,000; and of the exports upwards of 81,000,000 were in American vessels.

The amount of exports exceeds, by 17 millions, the average amount of the three years preceding; the imports exceed the average by about 11 millions. The amount of domestic manufactures exported during the year, was between five and six millions; exceeding the exports of the same character, in 1824, 800,000 dollars, and those of 1823, more than two millions of dollars. The increase is attributed to the new tariff.

Gross amount of duties accruing upon imports and tonnage, from January 1, to September 30, 1825, $ 25,500,000

The gross amount for the year is estimated at 31,000,000

This will exceed by 6 millions, the amount of any one year since the excessive importations of 1815 and 1816.

The amount of debentures issued during the first three quarters of the present year, was $ 4,489,710 29; being more by 1,537,710 99 than the amount in the same period in the preceding year. Amount of those outstanding on the 30th September last, and chargeable on revenue of 1826, 1,858,315 64 dollars; being more by 854,313 64 than was chargeable on the same day in 1824, on the revenue of 1825.

The whole receipts of the year 1826 are estimated as follows, viz.:

From customs,	24,000,000	
Public lands,	1,000,000	
Bank dividends,	385,000	
Miscellaneous and incidental receipts	115,000	
		25,500,000

The expenditures as follows, viz.:

Civil, miscellaneous, and diplomatic,	2,032,454 66
Military service, including fortifications, ordnance, Indian department, revolutionary and milita-	

ry pensions, arming the militia, and arrearages prior to the 1st of January, 1817,	5,525,662 55	
Naval service, including the gradual increase of the navy,	3,026,612 81	
Public debt,	10,000,000 00	
		20,584,730 02
Which will leave a balance in the treasury, on the 31st of December, 1826, of		4,915,269 98

The report concludes with a series of observations in favour of domestic manufactures, leading to a recommendation to augment the duties on all manufactures of cotton *of a fine quality*, and lowering those on teas, coffee, and cocoa.

FROM THE UNITED STATES GAZETTE.

INTERNAL IMPROVEMENT.

The acting committee of "the Pennsylvania Society for the promotion of Internal Improvement," communicate to the public the following extracts from their correspondence with William Strickland, Esq. and a communication received from him in reply to the same.

MATHEW CAREY,
RICHARD PETERS, Jr.
JOSEPH HEMPHILL,
WILLIAM LEHMAN,
STEPHEN DUNCAN,

GIRARD RALSTON, Secretary.

Philadelphia, Dec. 21, 1825.

Extract of a letter addressed to William Strickland, Esq. on the 17, September, 1825.

Canals and Railways present the most important of all subjects for your attention. Upon every matter connected with both, you will be expected to be well informed, and if you shall have to decide between them, you must be able to furnish the facts and circumstances by which the decision shall be produced. Much excitement prevails in the State upon the question whether railways are superior to canals, and the enquiries which are in progress in relation to them, are in the hands of men of ingenuity and well disposed to the cause of internal improvement. It is however feared by many, that the question between canals and railroads will have an injurious influence in Pennsylvania, as it will divide the friends of the cause of improvement, and thus postpone, if not prevent the commencement of the great works. The importance of correct information in relation to them is thus greatly increased."

"Those who have not had the same opportunities of testing the advantage of the mode of transportation which you now prefer, will

After these operations, and some exchanges of stock which are proposed there, will remain to be provided in the year 1829, eight and a half milions; and the same sum in 1830. After 1830 the remainder of the debt will be about forty millions, one half of which will be redeemable at the pleasure of the government; and the principal part bearing an interest of less than 5 per cent.

REVENUE AND EXPENDITURE.

The exports of the year ending the 30th September, 1825, exceeded	$ 92,000,000
The imports have exceeded.	91,000,000

Of the exports, upwards of 66,000,000 were of domestic, and the remainder of foreign productions. Of the imports, upwards of 86,000,000; and of the exports upwards of 81,000,000 were in American vessels.

The amount of exports exceeds, by 17 millions, the average amount of the three years preceding; the imports exceed the average by about 11 millions. The amount of domestic manufactures exported during the year, was between five and six millions; exceeding the exports of the same character, in 1824, 800,000 dollars, and those of 1823, more than two millions of dollars. The increase is attributed to the new tariff.

Gross amount of duties accruing upon imports and tonnage, from January 1, to September 30, 1825,	$ 25,500,000
The gross amount for the year is estimated at	31,000,000

This will exceed by 6 millions, the amount of any one year since the excessive importations of 1815 and 1816.

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"Those who have not had the same opportunities of testing the advantage of the mode of transportation which you now prefer, will

pause unless you furnish facts of arguments of an entirely exclusive character.

" Do you contemplate confining railways to the transportation of goods and merchandize, or do you propose they shall also be employed for the carriage of passengers? If both, must there not be a single railway for passengers? If these are to be formed, will not the expense of a railway be very considerable, say, if iron is at £14 per ton,—not less than £8000 per mile. Ought wood to be used as the foundation for the rails, thereby reducing the size of the rails as has been suggested by some persons?"

" Do you contemplate the use of Locomotive Engines on railways in Pennsylvania?

" Have you considered the difficulties and obstructions which the necessity to use steam engines to overcome ascents will produce, as these machines will require engineers and skill to use them, and to repair them, and many of them must be located in the midst of mountains far from settlements, and equally distant from the habitations of those who are competent to repair them?

" The present establishments in the United States for the making of iron, find a market for all the iron they make, at high prices. Pig iron, at Pittsburg, is forty dollars per ton. Bar iron one hundred and twenty-five dollars per ton.—Would not the demand for iron for a railway from Philadelphia to Pittsburg increase the price, and could that demand be supplied within a reasonable time?

" These propositions are not suggested as insurmountable difficulties, but as specimens of the matters which will be inquired of you when you return. It is not for the Pennsylvania society to adopt a preference for any particular plan of improvement, or to discourage investigation. Its object is the improvement of the state by the best plan, and this accomplished, the members will be fully compensated for their contributions towards the same.

To the Pennsylvania society for the promotion of Internal Improvement in the Commonwealth.

GENTLEMEN,

The queries proposed to me by the acting committee respecting rail-roads, contained in a letter of the corresponding secretary, dated September 19, 1825, having been duly considered by me, and although I am urged to furnish facts and arguments respecting them of an entirely conclusive character, I must be excused from any intention to offer opinions which may have a tendency to excite or divert the public from improving the State upon the most judicious plan.—I am assured it is not the object of the society to give a preference to any particular plan of improvement, or to discourage investigation.

If an extensive railway should be proposed in Pennsylania, it ought to be a *double line of edge rail*, and calculated for the use of locomotive engines; for with them only as the moving power, consists any decided advantage over other modes of conveyance. I would form this double line of railroad, at least ten feet apart, making it as nearly *level* as possible, or at any rate not to exceed

1-10th of an inch rise in the yard. It should be constructed for the transportation of goods, merchandize and lumber of all kinds.

If the country through which the road has to pass be undulating, or hilly, I would seek a level, to its greatest extent, by winding round the hills, cutting through them, or tunneling, which ever might prove, from accurate survey, to be the best and most expedient. I would avoid the frequent construction of *inclined planes*, with fixed engines, and carry the level and slightly inclined road as far as possible in *successive platforms*, or *level stages*, without assuming a higher level, until it became necessary to overcome a lift of not less than fifty feet at once, this would, of course, depend upon the nature of the ground upon which a second *extensive level* could be established, and so on ; avoiding all *small lifts* by inclined planes ;—I must here be permitted to remark, that this plan does not differ much from that pursued in the location of a canal, and that it will be admitted to be evidently cheaper to cut through a hill, or form a tunnel for the passage of a rail-road, than that of a canal, and again, there is no couutry however its surface may be varied, but what will afford as many facilities for the execution of one as the other.—If therefore a succession of level platforms, or stages of rail-road be established, and locomotive engines are made to ply upon each stage, it may be practically proved that there can be no greater difficulty in producing a transit of the *same quantity of goods or merchandize* at the rate of *six miles* an hour, than is usually conveyed upon a canal at 1-3d that speed. It is mainly from the application of *steam to the machinery as the motive power*, that a decided advantage is to be gained in the transportation of goods upon railroads ; and if speed is at all desirable, then, they are the best means by which it can certainly, and most economically be obtained :—The practical efficiency of the locomotive engine, and it superiority over horses, working on canals, was fully proved by the evidence adduced before the committee of the House of Commons, in the Liverpool and Manchester railway bill.

The stationary engine and inclined plane affords equally as speedy and simple a mode of communication between the level stages, and may be constructed with a lift of fifty feet in one thousand feet, for require perhaps more skill in *attendance and repairs*, then locks, & half the sum required to overcome the same elevation by lockage. Engines this may be used as an argument against their use, " in the midst of the mountains of Pennsylvania, far from the settlements and habitations of persons who may be competent to repair them ;" to this objection, I will only add that the management and repairs of their locks and sluices in the same situations, would be attended with nearly the same difficulties, but I take it for granted that there must be an attendant to either species of machinery who properly understands the subject. The extra power of the stationary steam engine may be employed for manufacturing purposes ; such as grinding grain, sawing timber, &c. &c. *If wood* be used as the foundation for the rails, its depth in order to afford sufficient strength for the support of a great weight, would be calculated to elevate the rails too high above the surface of the road, to allow a sufficient discharge

for the water under them ; and if the rails be reduced in size, and inserted in the wood, or bolted to it, it would be impracticable to give them an equal and more uniform bearing throughout their whole length, and they would from this cause inevitably break ; it is most essential that the *ends only* of the rail should *bear*, and hence a proportionate weight and strength of metal should be given to the intermediate parts.

I have no doubt but a demand for iron sufficient to form a railway from Philadelphia to Pittsburg, would increase its price considerably in Pennsylvania, and that there would be a great disadvantage experienced from the impossibility of the state being able to supply that demand within a reasonable period of time.

Various propositions may be suggested as *untried* and insurmountable *difficulties*, in the management and conduct of railroads, because they have never yet been used as the means of general or distant intercommunication, these are only to be understood by the fact, that they have been satisfactorily proved, upon a *small scale*, comparatively speaking, but they have been practically applied to varied surfaces of country and there now appears in England, to be a strong confidence among men of intelligence and capital, that there is in this country a necessity for a *general extension* of their advantages to facilitate the operations of *trade and commerce*.

It will be admitted however, that there are situations where canals cannot be formed ; and where, if formed, they may be ruinous and abortive experiments, but those can rarely occur with railways properly constructed ; a railway will always be *at least a road*. In making the foregoing observations ; I do not wish to be understood, as a champion of this species of conveyance, in opposition to the known advantages of canals, but simply as expressing, in common with others, an honest opinion derived from a personal investigation of *facts* which may be presumed to have been exhibited perhaps, upon too *small a scale* in England, to admit of an equivocal recommendation to your society, or the people of Pennsylvania, as the subject of *preference or experiment*.

Respectfully, your obedient servant,

WILLIAM STRICKLAND, engineer.

Liverpool, June 20, 1825.

ERIE AND CHAMPLAIN CANALS.

A correspondent of the Argus, who guarantees the accuracy of the statement, gives the following interesting items :

Total amount of the cost of the western and northern canals, up to the 1st of December, 1825, including the extinguishment of the right of the Inland Lock Navigation Company, incorporated March 1792, $ 9,123,000. Which amount was reduced by the excess of the fund which was provided to meet the interest on yearly loans, $ 1,352,000. Actual debt, $ 7,771;000. Total, 9,123,000 dolls.

Product of the year.

Tolls, $ 500,000; vendue sales, 220,000; salt duty, 100,000; total 820,000. Amount of interest on the actual debt, 419,000. Leaving a net surplus of 401,000.

As the whole line of the canal is now complete, and an uninterrupted water communication open from Lakes Erie and Ontario to the Hudson River—there can be little doubt but the nett receipts will exceed a million of dollars the ensuing year, increasing thenceforth with the increase of the western trade.

In 1817, the Grand Canal of New York was commenced; it is said to extend in actual cutting 353 miles, and was finished in 1825; having cost the State 8,000,000 dollars: during the last year it yielded 5 per cent. upon the entire cost.

Wines of Hungary and Greece.

From Henderson's history of ancient and modern wines.

WINES OF HUNGARY.

Hungary contains numerous vineyards, but they are chiefly in the hands of the peasantry, who pay no attention to the manufacture of wines. The Tokay wine, however, is highly celebrated for its excellence. It is the produce of a tract of various vineyards in the tract of country which extends twenty-five or thirty miles to the northwest of Tokay. It was not till about the year 1650 that the produce of these vineyards came into vogue, in consequence of the method adopted of preparing them from picked and half-dried grapes, on which the luscious quality of this wine depends. The whole quantity made consists of eighty thousand casks, containing about fourteen gallons each. Tokay is remarkably durable, and, like all sweet wines, it requires to be kept a long time, until it loses somewhat of its luscious taste, and the flavour begins to preponderate. It is accordingly kept a a long time; and in Poland and Silesia, where they are in great demand, the oldest only are drank. At Cracau, where 'the chief deposit of them is established, some vintages are said to have been kept a whole century. In this state it is called *vino vitrawno*, to distinguish it from the new and sweet, *vino slotki*, and sells generally at from four to six, and in some instances as high as eight ducats the bottle. When the emperor of Austria wished to make a present of some Tokay wine, in return for a breed of horses which had been sent to him by the king of Holland, the stock in the imperial and royal cellars was not deemed sufficiently old for the purpose, and 2,000 bottles of *vino vitrawno*, were therefore procured from Cracau, at the extravagant price of seven ducats the bottle."

GREEK WINES.

Greece with its islands, is extremely favourable to the cultivation of the vine; and Candia and Cpyrus, while under the Venitian

republic, supplied the whole of Europe with the finest desert wines. Under the miseries of Turkish bondage, every species of cultivation and industry has languished. No great skill is displayed either in the cultivation of the vine or in the manufacture of its produce.—Salt, baked gypsum, lime, and sometimes rosin, are used to correct the luscious qualitities of the wine. And the product of the fermentation is collected in skins smeared with tar, which imparts a disagreeable flavour, until the wine has been mellowed by long keeping. In many cases the poverty of the farmers will not allow them to adopt proper means for keeping their wines; but those who have subterraneous cellars for the purpose, occasionally produce good wine.—The following is Mr. Henderson's account of the best Greek wines:

'In the present, as in former times, the best Greek wines are of the luscious sweet class. Those made in Cyprus and Tenos, the red muscadine of Tenedos and the white muscadine of Smyrna, vie with the richest Hungarian wines. Several of the islands, however, as Ithaca, Cephalonia, Candia and Cyprus, yield abundance of dry and red wines, which resemble the secondary growths of the Rhone, and which, with a little more care in the manufacture, might be rendered fit for general exportation. Even now a considerable quantity is sent to the ports of the Black Sea. The red wine of Corfu is distinguished by its lightness and delicacy. In the Island of Zante a wine is made from the Corinth grape, which is said to approach to Tokay.

'Candia and Cyprus alone, if properly cultivated, would be capable of supplying us with every variety of wine. In the former island, the vineyards of Kissanos yield an agreeable claret; while those of Rethymo give a fine flavoured white wine, which keeps very well; and the malmsey made by the caloyers of Canca, and on the hills adjacent to Mount Ida, has been long in high estimation. In Cyprus the domain called the *Commendaria*, from its having belonged to the Knights of Malta, affords the choicest sweet wine. When new, it is red; but as it advances in age grows tawny, and improves in delicacy and flavour, till it surpasses almost all the other wines of the Archipelago. The muscadine of Cyprus is also an excellent desert wine, but has generally a disagreeable taste of the tar or pitch used for coating the bags in which it is conveyed from the mountains. According to Oliver, however, the white wine of Santorini, known under the name of *vino santo*, ranks before the best growths of Cyprus. It is principally exported to Russia. *London Paper.*

Permanent Ink for marking Linen.

This useful ink is composed of Nitrate of Silver (Lunar Caustic;) and Tincture, or Infusion of Galls; in the proportions of one dram of the former in a dry state, to two drams of the latter. The linen, cotton, or other fabric, must be first wetted with the following liquid, viz. Salt of Tartar, one ounce, dissolved in one ounce and a half of Water; and must be perfectly dry before any attempt is made to write upon it.

OREGON.

The following describtion of this portion of the country, is rendered more interesting by the circumstance that Gen. Floyd's bill, providing for its occupation, will be brought up at the present session of congress.

OREGON TERRITORY.

This territory bounds the vast dominion of the United States on the West. It extends from the 42d, to the 49th degree of latitude, and from the 115th, to the 125th, parallel of longitude west of London. It is bounded on the north, by a narrow belt of land, which separates our possessions from those of Russia, on the east by the Rocky Mountains, on the west by the Pacific, and on the south by the republic of Mexico. It is about 695 miles in length by 400 in breadth, and contains 375,000 square miles, which, if all sufficiently fertile, would support a population of five or six millions.—This immense territory is almost unknown. For the little knowledge we possess, we are principally indebted to the discoveries of Clark and Lewis, which did not extend much further than the banks of the Columbia river and its tributaries. The name of this river was changed, at the last session of congress, into Oregon, which signifies, in the native Indian language, "*the river that flows to the west.*" It has four great branches, by which it is supplied. The north branch, which still bears the name of Oregon; L wis and Clark's branches, which are each large rivers, 900 miles in length; and the Multnomah or east branch, heads in the same mountain with the Colorado and the Rio del Norte, which empty into different oceans; the latter in the Atlantic by the Gulf of Mexico, the former into the Pacific by the Gulf of California. The Oregon, after receiving the Multnomah, which is 1,000 miles in length, increases from one to five miles in breadth, and weds with the Pacific in 46 degrees 15 minutes of latitude. A branch of the California Mountain runs parallel with the sea coast 100 miles distant, in a due course north and south. The country between this and the Rocky Mountains is uneven, being a succession of hill and dale, of which some of the latter are very fertile.—The ground is, for many miles, covered with a beautiful growth of timothy and clover, which will be seen in the next century, covered with droves of cattle and sheep, feeding on the luxuriant herbage, and belonging to man in a state of civilization. From the scarcity of wood, if stone coal does not abound, this country would be more suitable for a grazing and a manufacturing than an agricultural community. One fourth part of this territory, that part which contains the Oregon Harbor, will, at a future day, enter the Republican Confederacy as Oregon State; and the city of Oregon, will arise on its banks, which shall rival New-York or Philadelphia in their wealth and population. Then the busy hum of commerce and the shouts of freemen shall re-echo from the Atlantic to the Pacific ocean. The inhabitants of this territory, will enjoy a fair share of the lucrative profits of the fur-trade, which is now principally monopolized by the British. They can also carry on a profitable trade in leather or hides, which they may,

in the same abundance, procure at the Republic of Buenos Ayres, from the numerous flocks of cattle which will feed on their plains. The wild sheep on the Rocky Mountains is indigenous in the Oregon territory. The wool is represented as fine and silky, and capable of being made into the finest of broad cloths.

Translation of a discourse delivered by the king of Sweden, before the Academy of Agriculture on the 28th of January 1825, the anniversary of its institution.

Gentlemen: At the institution of this Academy, twelve years ago, I remarked, in my address, that agriculture flourished most where a people may rest secure as to the future, under the protection of guaranties. Our expectations have been surpassed by the results. The influence of law, regard for its execution, individual security, and the assurance that the government was engaged to secure them inviolate and lasting, are the causes of our immense productions, notwithstanding the severity of our climate.

Twelve years ago, we were dependent on our neighbours for the first necessaries of life; we are now able to send supplies wherever a scarcity may prevail. The ships of Sweden have already exported our grain to the ports of the Atlantic and the Mediterranean. But, gentlemen, there is one grand object which should ever be kept in view; it is the system of conservation. If this principle regulate enterprize, equilibrium will be preserved, the riches of the country increased, and individual fortunes enlarged. We should at this time direct agricultural speculations towards this conservation, rather than to the maintenance of that impulse already given to them, which has been so perseveringly and successfully followed.

To conquests there is a limit; the necessity of things, the force of events, and nature itself, require it. Let us profit by the lessons which every thing conspires to teach. The good of a nation, the preservation of its rights, and the establishment of its prosperity, are not secured by precipitation, which effects nothing; permanent improvements must be introduced by time and repeated exertions. There are individuals who do not always perceive the beneficent purposes of the government, and imagine themselves aggrieved, when it is only intended to break the chains by which custom has bound them; whilst the very extent of knowledge in others impels them to leap the barrier to their wishes. If it be the duty of a citizen to respect the laws—even if they contain errors—the chief of a State himself is often compelled to act cautiously in abrogating usages consecrated by time, however opposed they may be to the developement of the richness and greatness of his country.

Nations are unlike to individuals. These are eager to enjoy whatever dazzles, captivates, and enchains them. Nations, on the contrary, perceive ages to pass away, and await the approach of future ones; the slow march of time and the experience of the past, confirm their existence and prepare them for a condition that may be the pride of their contemplation. It is this progressive march which I ask for the interests of agriculture. It instructs us that the

surplus of agricultural productions should be exchanged gainst the products of industry of towns, and while these are cultivators of the soil, and not employed in manufacturing, a country may be tranquil in its interior, and content with the enjoyment of its labours. But if towns compete with the country in cultivation, this branch of industry must finally be limited. They must, therefore, labour in producing those articles which we require, and for which we are yet tributary. We have the satisfaction to know that the increase of population since 1811 is equal to the whole amount of that of the two most populous provinces of the Kingdom at that time.

A nation studies the legislation of its neighbours, to extract from it what is useful; it should study their agriculture and administration, to profit by their discoveries, and avoid their errors. Agriculture is a branch of industry, and the most important of all; but like others, it is governed by laws, and these depend on the quantity of consumers. If production be greater than consumption, and have not a home or foreign market for its surplus, the condition of the cultivator, will every day become more serious and distressing.

Let us take advantage of whatever is useful, and reject what is prejudicial. Let us revert to the past, reflect on the present, and trust in the future with confidence, under protection of that Providence, which has, in so miraculous a manner, watched over one of the most ancient people of Europe; let us reflect, that whilst many nations are obliged to seek new resourses to supply their annual deficit, the two governments of Scandinavia have executed great works of internal communication for the benefit of agriculture, and every year have presented an excess of revenue or subtracted from the burden of taxes, which weighed most heavily on the agriculturist. Let us not forget, that to continue free in our domestic, and independent in our political relations, we have but to prove true to ourselves, and to reconcile the love of independence with respect for authority. The two people of the peninsula maintaining relations of union and mutual confidence and attachment, will be powerful in that connexion, and no less strong in the policy of their government; for, ambitious of nothing abroad, they have nothing to fear.

AN EXTRACT.

Extraordinary sagacity in the canine species.

A short time since, a gentleman at Richmond, Surry, laid a wager with a friend that his dog should go from Richmond bridge to Brentford, and return with half a crown, in two hours. The dog was accordingly taken to the entrance of Brentford, where his master placed half a crown under a stone, and then returned to Richmond. The dog was then despatched to perform his master's wager, and he went immediately to the spot where the money was formerly deposited, but the stone had been removed, and the half crown taken away.

Unable to find the money, the dog ran towards Kew-bridge,

where he overtook a gentleman and followed him into his house near the Green. The gentleman endeavoured to drive the animal away, but Prince refused to quit him, and, struck by the singularity of the dog's attachment, the gentleman made no further efforts to part.

The time having elapsed for winning the bet, the owner of the dog expressed a belief that some accident had prevented the animal from returning, and requested his friend to go with him in search of the dog. They then walked to Kew Green, where they observed the gentleman before described coming out of his house, with Prince at his heels. The owner instantly accosted the gentleman, and requested to know how he came by the dog, observing, the dog was his. The gentleman described the manner in which the dog had followed him, and assured the party he had no wish to detain him. The owner then asked the gentleman if he had any thing about him that was not his own property? In answer to this interrogatory he exclaimed: "What do you mean, sir; do you take me for a thief?" The master of the dog replied: "'Pon my honor I mean nothing personal; but the dog has a wonderful sagacity in discovering any article that may have been in my possession. Pray, sir, have you found any thing?"—The gentleman returned: "Why, I have indeed found something of small value: returning from Brentford, I picked up a half crown by the road side." The dog's master, with a hearty laugh, exclaimed: "That half crown, sir, has been the cause of my dog's attachment to you. My friend and I placed the half crown on the spot you found it to decide a wager, and for the truth of what I assert, put the half crown down among twenty others, and if my dog don't pick it out from the rest, I will forfeit 100*l*." The gentleman with surprise, instantly laid down the half crown among five others. It had been previously marked, and the dog immediately selected it from the rest, and carried it to his master, to the great astonishment of all who witnessed the circumstance.

The dog has frequently done similar exploits, and is considered a most extraordinary animal by the surrounding neighborhood.

FRANK VANDERHACKEN'S DREAM.

Frank Vanderhacken, was one of those discontented mortals who are eternally endeavouring to wear out the patience of our good lady dame Fortune, with a catalogue of complaints as long as the tail of the great comet we saw just before the last British war. His crops never grew to his liking—the season was always too wet or too dry—too warm or too cold. The prices of grain were for ever too low, and that of groceries too high, for the plain reason, that he *sold* the former, and always had to *buy* the latter—because Madam and the young ladies, like good christian women, loved to set off a smart tea-table, and Frank himself was no very decided enemy to good living. But things went wrong, and he was not a happy man.

His neighbours used to call him a castle-building sort of a genius; and said all his troubles arose from his dreaming himself into a very great man every night, and waking up plain Farmer Frank in the morning—and certainly it can be no very pleasant thing to wear a crown at night, whether in fancy or reality, and be tumbled down to the plough tail in the morning—It's worse than plunging from a warm bed into a cold bath. But however this might have been, his affairs became in time somewhat deranged, in consequence of the inattention to business, which grew out of his perpetual repining. A heavy heart never drives business on spiritedly, and misfortunes sometimes come in earnest to those who take so much pains to persuad themselves they are unfortunate.

Thus were affairs situated when Frank, who from being discontented with his own situation had become envious of that of every one else, after a long walk over his farm, at this time loaded with the promises of a rich harvest, returned home, and throwing himself on a sofa, fell into a profound sleep; and directly a tall noble looking man, wrapped up in a large cloak, stood by his side, and accosted him with "come Frank, my name is Fortune, go with me—I have long heard thy complaints, and purpose holding a fair today, by attending which thou mayest probably better thy hard lot." He rose immediately, and putting on his hat accompanied his mysterious guide.

Presently he found himself in an extensive plain, crowded with a vast number of men belonging to all the different professions in the world. "Here" said Fortune, pointing to the great assemblage, "Here are many thousands of good men, either of whom will change situations with you, even handed at my command—you may therefore make your choice." Frank thanked his good friend—his eyes sparkled with pleasure, as the the crowd began to pass one after another before him, and he could hardly refrain from jumping with joy, as his eye rested on the portly form of a rich neighbour of his, who was one of the first to approach him, and whose long purse he had often bitterly envied him.

"That is the man if you please," said Frank, and at the beck of his companion, old Mortgage stood by his side; and very complacently began to deliver up his deeds and bonds, and obligations, and having done so, Frank was about to run home with the glad news, and get ready to put the old man in possession of the little Farm; but Mortgage lifted up his gouty leg, and Fortune called—"Here Frank, this goes with the rest—the bargain is situation for situation, and the gouty foot goes with neighbour Mortgage's estate." Frank was thunderstruck; he stared a minute, and then threw down the bundle of papers, as a man would drop a hot dumbling—"I would not have his gout," said he, "for all the dale."

The next personage that arrested Frank's attention, was a wealthy shipping merchant, of the city. He was again in rapture—and bent on the exchange. The merchant began to deliver inventories of his property—and among the rest, those of the cargoes of five vessels at sea. These last constituted a main part of the clear estate, and Frank never knew the anxiety that follows the possession

of such property, till now—he remembered the great storm but a few days before; and that he heard of the wreck of some vessels on the shore. He hesitated; he trembled; he turned to go, but he felt he should be for ever unhappy; and he once more declared himself dissatisfied; and that as yet he had not found one whose situation was better than his own.

Then a dashing young fellow who owned the largest, richest, and most elegant farm in all Annandale, presented himself, and Frank was sure of being suited. He had often envied Jehu's fine horses and curricle, and thought to be a farmer after that sort would be worth living for. But when the young buck came to deliver up the title deed, a bond and mortgage, with interest unpaid, for a half dozen of years, was enclosed in it; enough to swallow two thirds of the estate, and horses and curricle in the bargain—Frank drew back. "No, no," said he, "the Dairy is clear of debt, and don't slip through my fingers this way."

Thus it turned out with some hundreds more who were presented as candidates for a change of situation with Frank. Though these were taken promiscuously from among the rich and poor—farmers, merchants, mechanics, professional men, &c. Some were incumbered with debts; others with diseases that belonged to their necessary mode life; some had one trouble; some another difficulty; and Frank in the end was thoroughly convinced he would never be able to better his condition on the whole by an exchange; and expressed to his kind guide his perfect satisfaction with his own condition.

"Take then home with you," said Fortune, "this truth—none are perfectly happy in this world; few comparatively so. In every situation there are difficulties to be encountered; things unpleasant to be endured; and he is the happiest man, who determines to be contented with what he has, instead of troubling his head about what he has not. You can see but the outside of others; you know nothing of the secret troubles which perplex every bosom. Try to be happy; and you will be as happy as your neighbours."

Frank waked from his sleep just as Fortune had finished this speech; and has ever since been a changed man. There is not at this day a more merry fellow in all Annandale.

OLIVER OAKWOOD.

He sealeth up the hand of every man; that all men may know his work.—Job xxxii. 7.

This passage relates to the winter, when men cannot pursue, as ordinarily, their business in cultivating the earth, which becomes bound with ice, as with iron, or sealed against the hand of man.—This sealing of the earth, or the hand, affords the husbandman an excellent opportunity for improvement. The winter is a season of leisure. How short the day for performing labour. How long the evening and night to rest! How convenient the evening for reading, for study, for religious and moral improvement. Several hours may be devoted by the husbandman to instructing his family,

gaining information, examining the state of his affairs, by laying his plans for future business, and occasionally holding intercourse with his friends and neighbours, and the like. He may meditate on the works of God, his providence, his government of the world, especially on the wonders of the passing season. The power and majesty of God are suggested by the howling wind, the mighty cold, the impassable snows, the strong fetters of ice. The wisdom and goodness of God are seen in the arrangement of the seasons, in the provision made for the support and comfort of this dreary season by the productions of the preceding, in the comfort of our dwellings, in the various methods of mitigating the severity of the season. This work forces itself on our reflection.—We are invited by many circumstances to meditation. What vast improvement may be made, if our minds are half as active as our bodies are when we venture from our shelter.

The husbhandman, in looking round upon his flocks of various kinds is reminded of the honourable station he holds;—he is the divine almoner These creatures depend on him as he depends on God. He opens his hand to their wants, he affords them shelter from the storm and cold. He holds a reponsible place in the divine government. How pleasant must it be to his feelings to observe the wishful eye of the ox and the whole stall greeting his approach; how soothing to the ear are the hum and cackle of the fowls, after their hunger has been allayed by his bounty. How evident is the work of God in making a dependence among the various animals, rendering them subservient to one another's comfort. The ox depends on man, and man is aided by the ox.

Who has a better opportunity to consider and know the work of God than the husbandman?—And what season more convenient for acquiring this knowledge? How favourable also to devotion is the winter season. The solemn grandeur every where visible produces awe and reverence; the divine goodness inspires trust and confidence. How should the season awake our benevolent feelings! When we are sheltered against the cold storm, shall we not extend a helping hand to the poor, whose fire-sides are scarcely warm, whose stores are scanty, whose covering cannot exclude the piercing cold? How should we endeavour to furnish them with means of meditating on the works of God, and excite them to observe the power, wisdom and goodness of Providence?

LAY PREACHER.

REFLECTIONS

On the approach of winter.

Desponding nature droops her head,
And shrinks beneath the northern blast;
The trees their leafy honours shed,
And autumn's glory flies in haste.

From Zembla's cold and dreary shores,

Bleak winter comes with rapid strides,
Of storms he brings his various stores,
And pours them down the mountain's sides.

O Man! behold the year decay,
And cast a thought on seasons gone,
Thy spirit too, must wing her way,
To realms far distant and unknown.

The fading glory of the year,
Should bid thee think upon thy doom;
Thou canst not tell how near,
Which lays thee in the silent tomb.

Winter may clothe in white the plain,
And bind in ice the limpid stream,
But genial spring dispels his reign,
And wakens nature from her dream.

Ah! when thy morn of youth is fled,
No second spring to thee returns;
When age with snow shall crown thy head,
The lamp of life but faintly burns.

Then be prepar'd to meet thy God;
Let not thine eyes be fix'd on earth,
But upwards look to that abode,
Where love eternal claims its birth.

Years may in swift succession roll,
And each its full fruition bring;
But that immortal spark the soul,
Shall flourish in perennial spring.

Preserving Sheepskins.

As soon as the skin is taken off, pour upon it about a pint of warm water, roll it up and let it remain in some warm place for about six hours. The wool may then be pulled perfectly easy, and the skin is left in a better state for preservation, than when the usual mode of strewing on ashes or lime has been practised. The water should be about blood heat, as a higher temperature will injure the skin. Considering the large number of sheepskins which are annually disposed of, the above suggestion is worthy of attention.

Infallable cure for choped lips.

Dissolve a lump of beeswax in a small quantity of sweet oil, over a candle; let it cool, and it is ready for use. Rubbing it warm on the lips, two or three times, will effect a complete cure.